The Claims

Claims 1 – 31 and 65 - 95 are pending. Claims 19 and 68 are amended. Claims 87 - 95 are new.

1. (Previously Presented) A test fixture for use in a magnetic resonance imaging system, comprising:

a body portion having a first longitudinal axis along a first direction;

a first coil supported by the body portion, the first coil being wound around a second longitudinal axis, the second longitudinal axis being along the first direction;

a longitudinal member connected to the body portion, the longitudinal member having a third longitudinal axis along a second direction transverse to the first direction;

a second coil supported by the longitudinal member, the second coil being wound around a fourth axis along a third direction transverse to first direction; and

a container to contain a test substance, the container being supported by the longitudinal member adjacent to the second coil.

2. (Previously Submitted) The test fixture of claim 1, wherein the first coil is wound around the body portion, perpendicular to the first longitudinal axis.

3. (Previously Submitted) The test fixture of claim 1, further comprising the test substance contained by the container, the test substance being chosen from the group consisting of petroleum jelly, water, salt water and nickel chloride.

4. (Previously Presented) The test fixture of claim 1, wherein the longitudinal member is pivotally connected to the body portion about an axis perpendicular to the first longitudinal axis of the body portion.

5. (Previously Presented) The test fixture of claim 4, wherein:

the longitudinal member has a first position wherein the third longitudinal axis of the longitudinal member is along the same direction as the first longitudinal axis of the body portion and a second position wherein the third longitudinal axis is perpendicular to the first longitudinal axis.

6. (Previously Presented) The test fixture of claim 1, wherein the container is within a region defined by the second coil.

7. (Previously Presented) The test fixture of claim 1, wherein the second coil is a transceiver.

8. (Previously Presented) The test fixture of claim 1, further comprising:

a pivotable connector connected to an end of the body portion, the pivotable connector having an axis of rotation perpendicular to the first longitudinal axis;

the pivotable connector being adapted to be connected proximate a pole of a magnetic resonance imaging magnet.

9. (Previously Presented) The test fixture of claim 1, wherein the first coil is a receiver coil.

10. (Previously Presented) The test fixture of claim 1, wherein:

the body portion has a recessed section; and

the first coil is wound around the recessed section.

11. (Previously Presented) The test fixture of claim 1, further comprising electrical connections for coupling the first and second coils to circuitry external to the test fixture.

12. (Previously Presented) The test fixture of claim 1, wherein the body portion has an adjustable length.

13. (Previously Presented) The test fixture of claim 12, wherein the body portion comprises a telescoping section for adjusting the length of the body portion.

14. (Previously Presented) The test fixture of claim 13, wherein:

the telescoping section comprises first and second longitudinal members; and

the second longitudinal member defines a longitudinal opening for receiving the first longitudinal member such that at least one of the first and second longitudinal members may be moved with respect to each other to vary the length of the test fixture.

15. (Previously Presented) The test fixture of claim 1, wherein:

the body portion has an adjustable length;

the longitudinal member is pivotally connected to the body portion; and

the test fixture has a first, undeployed position, wherein the body portion has a first length and the second longitudinal axis of the longitudinal member is positioned along the first direction, and

a second, deployed position, wherein a length of the body portion is increased from the first length to a second length and the second longitudinal axis ~~is~~ positioned along the second direction transverse to the first longitudinal axis; and

wherein the fourth axis of the second coil is positioned along the second direction when the longitudinal member is in the second position.

16. (Previously Presented) A test fixture for use in a magnetic resonance imaging system, comprising:

a longitudinally extending body portion comprising first and second longitudinal members, the first longitudinal member defining an opening for slideably receiving the second longitudinal member;

a first coil wound around the first longitudinal member, perpendicular to a longitudinal axis of the body portion;

a third longitudinal member pivotally connected to the body portion about a pivot having an axis perpendicular to the first longitudinal axis, the third longitudinal member having a second longitudinal axis and being rotatable between a first position wherein the second longitudinal axis is parallel to the first longitudinal axis and a second position wherein the second longitudinal axis is perpendicular to the first longitudinal axis; and

a second coil supported by the third longitudinal member, the second coil being adapted to receive a container containing a test substance capable of emitting a magnetic resonance imaging signal.

17. (Previously Presented) The test fixture of claim 16, further comprising a container received by the second coil.

18. (Previously Presented) The test fixture of claim 17, further comprising a test substance chosen from the group consisting of petroleum jelly, water, salt water and nickel chloride.

19. (Currently Amended) A test fixture for use in a magnetic resonance imaging system, comprising:

a body portion having a longitudinal axis and first and second ends ~~aligned with~~ along the longitudinal axis, at least one of the first and second ends being adapted to be connected to a magnetic resonance imaging system;

a member having a first end connected to the body portion and a second end distanced from the body portion; and

a coil supported by the member.

20. (Previously Presented) The test fixture of claim 19, wherein the coil is supported by the member proximate the second end of the member.

21. (Previously Presented) The test fixture of claim 20, further comprising:

a container supported by the member, proximate the coil; and

a test substance within the container, the test substance being capable of emitting a magnetic resonance signal.

22. (Previously Presented) The test fixture of claim 21, wherein the container is within the coil.

23. (Previously Presented) The test fixture of claim 22, wherein the test substance is chosen from the group consisting of petroleum jelly, water, salt water and nickel chloride.

24. (Previously Presented) The test fixture of claim 23, wherein the member is pivotally connected to the body portion.

25. (Previously Presented) The test fixture of claim 21, further comprising a second coil wound around the body portion.

26. (Previously Presented) The test fixture of claim 25, wherein the body portion comprises first and second members, the first member defining an opening for slideably receiving at least a portion of the second member.

27. (Previously Presented) The test fixture of claim 26, wherein the coil is wound around the first member.

28. (Previously Presented) A test fixture for use in a magnetic resonance imaging system, comprising:

a body portion comprising a first member and a second member defining an opening for slidably receiving at least a portion of the first member, such that the first and second members may be moved with respect to each other to adjust the length of the body portion; and

a coil supported by the body portion.

29. (Previously Presented) The test fixture of claim 28, wherein the first and second members are longitudinal members; and

the coil is wound around the first longitudinal member.

30. (Previously Presented) The test fixture of claim 29, further comprising:

a third longitudinal member pivotally connected to the body portion; and

a second coil supported by the third longitudinal member.

31. (Previously Presented) The test fixture of claim 30, further comprising:

a container supported by the third longitudinal member, within the second coil; and

a test substance within the container, the test substance being capable of emitting a magnetic resonance signal.

32.-64.(Cancelled)

65. (Previously Presented) The test fixture of claim 10, wherein:

the first coil is wound perpendicular to the first longitudinal axis.

66. (Previously Presented) The test fixture of claim 19, wherein:

the first and second ends are adapted to be connected to the magnetic resonance imaging system.

67. (Previously Presented) The test fixture of claim 19, wherein:

at least one of the first and second coils is electrically connected to at least one of the first and second ends; and

the at least one of the ends is adapted to be electrically connected to the magnetic resonance imaging system.

68. (Currently Amended) A test fixture comprising:

a base having an axis;

a first coil coupled to the base in a first orientation with respect to the axis; and

a second coil coupled to the base in a second orientation different from the first orientation, with respect to the axis;

wherein the fixture is adapted to be connected to an MRI system.

69. (Previously Presented) The test fixture of claim 68, wherein:

the first coil is wound around a second axis, the second axis being along a first direction; and

the second coil is wound around a third axis, the third axis being along a different direction than the second axis.

70. (Previously Presented) The test fixture of claim 69, further comprising:

a member coupled to the base;

wherein the second coil is coupled to the member.

71. (Previously Presented) The test fixture of claim 70, further comprising:

a pivotal coupling between the member and the base.

72. (Previously Presented) The test fixture of claim 71, wherein:

the member has a first, undeployed position;

the member has a second, deployed position;

the member is movable from the first position to the second position by rotation of the member about the pivotal coupling; and

the second axis of the first coil and the third axis of the second coil are positioned along different directions, when the member is in the deployed position.

73. (Previously Presented) The test fixture of claim 72, wherein:

the second axis of the first coil and the third axis of the second coil are positioned along the same direction, when the member is in the undeployed position.

74. (Previously Presented) The test fixture of claim 72, further comprising:

a container to contain a test substance, the container being supported by the longitudinal member adjacent to the second coil.

75. (Previously Presented) The test fixture of claim 68, wherein:

the base comprises first and second telescoping members; and

the first coil is supported by one of the telescoping members.

76. (Previously Presented) The test fixture of claim 68, wherein:

the telescoping members comprise first and second longitudinal members; and

the second longitudinal member defines a longitudinal opening for receiving the first longitudinal member such that at least one of the first and second longitudinal members may be moved with respect to the other to vary the length of the test fixture.

77. (Previously Presented) The test fixture of claim 75, wherein:

the base has a first, undeployed position, wherein the base has a first length;

the base has a second, deployed position, wherein the base has a second length greater than the first length; and

the base is extendable from the first length to the second length by moving at least one of the first and second longitudinal members with respect to the other.

78. (Previously Presented) The test fixture of claim 72, wherein:

the base has a first, undeployed position, wherein the base has a first length;

the base has a second, deployed position, wherein the base has a second length greater than the first length; and

the base is extendable from the first length to the second length by moving at least one of the first and second longitudinal members with respect to the other.

79. (Previously Presented) A test fixture for use in a magnetic resonance imaging system, comprising:

a base comprising first and second telescoping members;

the base being extendable from a first length to a second length by extending at least one of the telescoping members with respect to the other;

a first coil supported by the base;

a member pivotally connected to the base;

a second coil supported by the member;

wherein the member is rotatable from a first position to a second position.

80. (Previously Presented) The test fixture of claim 79, wherein:

the first coil is wound around a first longitudinal axis along a first direction;

the second coil is wound around a second longitudinal axis; and

rotation of the member positions the second longitudinal axis of the second coil along a direction transverse to the first direction.

81. (Previously Presented) The test fixture of claim 80, further comprising:

a container to contain a test substance, the container being supported by the longitudinal member adjacent to the second coil.

82. (Previously Presented) The test fixture of claim 81, wherein the container is supported within a region defined by the second coil.

83. (Previously Presented) The test fixture of claim 79, wherein:

the member is longitudinal and has a longitudinal axis; and

in the first position of the longitudinal member, the longitudinal axis is positioned along the first direction.

84. (Previously Presented) The test fixture of claim 16, wherein:

the second coil has a different orientation than the first coil when the third longitudinal member is in the second position.

85. (Previously Presented) The text fixture of claim 1, wherein the first and second longitudinal axes are the same.

86. (Previously Presented) The test fixture of claim 74, wherein the container is supported within a region defined by the second coil.

87. (New) The test fixture of claim 28, wherein:

a first portion of the body portion is adapted to be mechanically connected to the magnetic resonance imaging system; and

a second portion of the body portion is adapted to be electrically connected to the magnetic resonance imaging system.

88. (New) The test fixture of claim 87, wherein the first portion of the body portion is adapted to be pivotally connected to the magnetic resonance imaging system.

89. (New) The test fixture of claim 28, wherein the first and second members may be moved continuously with respect to each other to adjust a length of the body portion to any desired length within a predetermined range.

90. (New) The test fixture of claim 68, wherein:

a portion of the body portion is adapted to be mechanically connected to the magnetic resonance imaging system.

91. (New) The test fixture of claim 90, wherein the portion of the body portion is adapted to be pivotally connected to the magnetic resonance imaging system.

92. (New) The test fixture of claim 90, wherein a second portion of the body portion is adapted to be electrically connected to the magnetic resonance imaging system.

93. (New) The test fixture of claim 68, wherein a portion of the body portion is adapted to be electrically connected to the magnetic resonance imaging system.

94. (New) The test fixture of claim 93, wherein the first and second coils are electrically connected to the portion of the body portion adapted to be electrically connected to the magnetic resonance imaging system.

95. (New) The test fixture of claim 19, wherein:

the first end of the body portion is adapted to be mechanically connected to the magnetic resonance imaging system; and

the second end of the body portion is adapted to be electrically connected to the magnetic resonance imaging system.